

# Preliminary Study: IQF Curriculum Evaluation Towards MBKM in Terms of Conceptual Model and Experts Judgments

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**Abstract.** The three profiles of the graduates of the Physics Education Study Program at UIN Raden Fatah Palembang are expected to be Physics Educators for Secondary Education, Physics Researchers, and Entrepreneurs. However, the facts on the ground are not so, so it is necessary to evaluate the curriculum. The purpose of this study is as an initial research for curriculum evaluation with a focus on the study of conceptual models and assessment of the implementation of the IQF curriculum. The approach used is Mix Methods with Qualitative and Quantitative design. The sample of this study was 100 alumni who graduated in 2018, 2019, 2020, 2021 and 2022. Data collection used a questionnaire via google forms for tracer studies, direct interviews with alumni and FGDs that presented expert judgment to assess the weaknesses of the IQF curriculum. Data analysis used descriptive qualitative and quantitative. The results of the study resulted in several recommendations for Expert Judgment including; 1) The new curriculum is able to accommodate MBKM policies with various schemes offered, 2) Redesign the curriculum according to its content and the needs of the current world of work, 3) It is necessary to study several courses in order to follow the hierarchy and prerequisites of previous courses, 4) Review back The CPL of SKS courses that are too large such as Mechanics and Electricity and Magnetism, 5) Elective courses should be submitted to lecturers who support the profession/entrepreneur, 6) Adding courses that can introduce students to technology-based learning, 7) Adding an elective MK that provide special skills and in accordance with current developments, especially in the field of entrepreneurship

**Key words:** IQF Curriculum; MBKM; Evaluation

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## INTRODUCTION

The influence of the era of disruption/ industrial revolution 4.0, the seventh level contributes to a significant number of graduate unemployment. In 2020, the open unemployment rate was 5.01% of 136.18 million total jobs, unemployment in South Sumatra province was 3.99% of 136.18 million jobs (Central Bureau of Statistics, n.d.). In 2021 there will be an increase in unemployment by 600 people so that the total unemployment in Indonesia reaches 6.88 million people from the total number of workers (9137.91 million people) (BPS, 2020). This unemployment illustrates that professional competence has not been optimally accepted by graduates. One of the root causes of this unemployment is the mismatch between the learning outcomes of competencies obtained in the study program and the needs of the world of work. Based on research (Hoesny, Ulfah, 2021) states that there are still many teachers who do not pursue their profession, lack of teacher motivation in developing their professional qualities, and teacher professionalism in Indonesia is still low.

The expectation from the curriculum that has been prepared is that graduates of the Physics Education Study Program at UIN Raden Fatah Palembang have professional competence, pedagogy, good morals and attitude, with one of the profiles of graduates being educators and education staff who have the four competencies in which there are soft skills. However, based on data from BPS that unemployment in Indonesia from teacher graduates is quite significant, it is suspected that the cause is a mismatch between the learning outcomes of the KKNI and the needs of the field (world of work). There are a number of graduates who work as employees of companies and banks, which illustrates that the pedagogy competence of graduates is also not optimal.

Regarding the pedagogy competence of graduates, the results of the study show that 40% of junior high school teachers and 33% of high school teachers who teach are not subject to expertise (Hoesny, Ulfah, 2021). This of course will affect the process and learning outcomes of students who are less than optimal because they are not the knowledge/competence of the teacher.

The problem of the teacher's lack of knowledge about methods, approaches, teaching materials to teach a concept will have an impact on students' low understanding of concepts. The results also showed that from 24 high school students, 67% had conceptual errors in defining concepts and 70% experienced conceptual errors in defining physics laws (Setiawan & Syaifuddin, 2020).

In addition, in the current digital era, a negative phenomenon has emerged among academics/educators/educational staff. Hate speech in embel media such as facebook, twitter and others. This also certainly illustrates that the competence of graduates from a social perspective is also not optimal, so that such actions appear.

Based on the news in the embel daily (Kompas, 2019), the perpetrator who is a high school teacher in Banten was arrested by the Cybercrime Criminal Investigation Police for spreading hate speech and false news in embel media. The alleged teacher was arrested for being related to postings on his Facebook account containing racial discrimination, ethnicity, and hostility towards certain individuals and or community groups. The same thing happened with the perpetrator, a teacher in Pamekasan Madura who used his Embel Media account (Bhirawa, 2019)

Bargaining between students, free sex between students/educators and other negative phenomena also illustrates that the competence of graduates' attitudes is also not optimal. These facts are certainly not in line with the expectations of the LO KKNi-based curriculum and soft skills (morals). Based on research (Andi Dody, 2020) stated that student conflict at the Parang Tambung campus is a conflict that tends to be handled by several parties. One of the reasons for this brawl between students is because of the student's view that conflict is a way to realize interests or needs. Apart from that, this conflict is also caused by the weakness of the campus system in building curriculum and enforcing campus academic regulations.

Based on tracer study data, information is obtained that there are several graduates who have worked but whose profession is not as educators (teachers) but as employees of companies, banks and entrepreneurs. About 10% of graduates are employed as employees. Then the waiting time for graduates to work also varies, some are more than six months 1 year or even more to get a job, graduates should be ready to go to work in schools after completing their studies

in Study Programs. Of the 100 graduates in the last five years, due to the limited availability of employment opportunities, graduates work outside the competence of the study program. As many as 10% of teachers who work in banking and companies. So it is not because the competence of graduates is considered not optimal but also compensates for the limitations of available employment, while LPTKs which annually provide produce thousands of graduates who are prospective educators of physics education study programs. .

The results of the study (Jumaeri et al., 2018) obtained 28 alumni respondents. Of these, 22 alumni have worked with a waiting time of 1 month to 2 years. Of the 24 respondents who have worked, 22 people have educational relevance to their field of work and 2 people have jobs that are not relevant to their education. The results showed that the Employment Status of the 2015-2017 Chemistry Department alumni was in accordance with the expected Alumni Profile, namely for the Chemistry Study Program as QC (Quality Control) 22%, Chemical Analyst 16%, Research and Development (RnD) 16%, Chemistry Tentor 16 %, others (bank employees, admins, etc.) by 20% (Jumaeri et al., 2018)

These phenomena certainly illustrate the incompatibility of several competencies that occur in the field (world of work). The four competencies of graduates absorbed are not yet optimal. For this reason, solutions to the problems that occur in the field are needed. An evaluation study of the level of conformity of the IQF curriculum management in order to harmonize Learning Outcomes at levels six and seven so that the competency needs of graduates in the field with the curriculum have links and matches according to the times. One way is to conduct a study of the level of conformity of curriculum management based on the LO KKNi for graduates in order to harmonize these suboptimal competencies that occur in the field. This is because the KKNi is structured as a competency qualification tiering framework that can juxtapose, equalize, and integrate between the education sector and the field of job training and work experience in order to provide recognition of work competencies in accordance with the work structure in various embels including education. KKNi, each study program is required to clarify the expected "graduate profile" through study tracking activities, feasibility studies and needs analysis in the community. The profile of graduates reflects the minimum skills that must

be mastered by students after graduation which refers to four aspects of needs (1) attitude, (2) work ability, (3) knowledge, and (4) managerial and responsibility. The four competencies must then be translated into a learning outcome for each subject in the study program. So that later, all learning plans or Semester Implementation Plans (RPS) must be based on learning outcomes (Learning Outcomes) that are in accordance with the needs of the graduate profile. Therefore, it is necessary to review the study of the IQF curriculum which has been implemented since 2014. This aims to align the competencies in the study program curriculum with the needs of the community in accordance with the demands of the times.

Within the education management function there is a controlling function. The control function is an effort to assess/evaluate a performance based on the standards/competencies that have been made/implemented and also make improvements if needed in the field (Kadir et al., 2020; Widiensyah, 2019). Activities in this control function, for example, evaluate success and targets by following established standards/competencies, making corrections to deviations found, providing alternative solutions and corrections that can overcome problems that occur (Maujud, 2018; Pananrangi, 2017).

According to (Fayol, 1961; Indartono, 2016), this controlling function will run effectively by paying attention to the following things: (1) routing (path), managers determine ways or paths so that they can easily find out where an error often occurs; (2) scheduling, the manager determines when supervision should be carried out, sometimes scheduled supervision may not be efficient in finding a fault and conversely something carried out suddenly is even more useful; (3) Dispatching (execution orders), namely supervision in the form of an execution order on work. The goal is that a job can be completed on time. Commands can make a job avoid hanging around, and in the end if something goes wrong, it can be easily identified who and what made the mistake; (4) Follow Up (follow-up) managers find solutions if errors are found, follow-up can be by giving warnings to parties who intentionally or unintentionally make mistakes and provide instructions so that the same mistakes will not happen again. A good form of controlling is supervision that is in accordance with the needs/nature/character of a program (Handjojo & Dr. Theresia Dwi Hastuti, 2020;

Permana & Setyawan, 2018; Widiensyah, 2019). De With information about the achievement of learning outcomes and reflection on the application of religious moderation, data/information will be generated about the advantages and disadvantages of the level six KKNi curriculum that can be taken into consideration for evaluating the implementation of learning outcomes of the KKNi for the Undergraduate Physics Education Study Program.

The MBKM curriculum draft from the results of this study is expected to be able to solve the problems above. This is because it has been analyzed based on conceptual, theoretical studies related to the competencies contained in the IQF Curriculum guide and facts in the field. The combination of these two things is believed to be able to harmonize the curriculum conditions according to the times.

The purpose of this study is as a preliminary study for curriculum evaluation with a focus on the study of conceptual models and assessment of the implementation of the IQF curriculum. The benefits of the research are 1) to produce a draft analysis of the ideal and factual model of the implementation of the IQF Curriculum, 2) to produce judgments/recommendations on the suitability of the curriculum in the field in the context of preparing the MBKM curriculum.

## METHODS

This study uses a mix methods approach, namely qualitative and quantitative. Qualitative data collection through direct interviews with alumni and their superiors and quantitatively using google form/tracer study. The research procedure carried out is as follows:

1. Preliminary studies, reference studies, and study of study program curriculum documents and profiles of expected graduates. This stage produces the ideal model expected of the graduate profile.
2. looking for konseptual model of curriculum on graduates, literature, especially relevant theories and concepts such as management, curriculum, teacher competencies, learning outcomes, learning outcomes etc., as well as reviewing the latest research findings. Needs analysis is all activities which collects the need to analyze teacher competency needs. These needs are gathered from various sources including graduates and related stakeholders. This data was obtained using

- questionnaires, study tracers, interviews and study documents
3. carry out information gathering activities related to curriculum evaluation. this activity is in the form of a workshop and discussion group forum (FGD) with experts, academics, internal lecturers of study programs, students about the KKNi curriculum that has been implemented since 2014.
  4. Make the results of the study of the suitability of the model in the draft management model

for the development of the IQF curriculum in the context of preparing the MBKM curriculum.

## RESULTS AND DISCUSSION

The ideal model is based on the study program curriculum document, namely the KKNi curriculum. The following is a graduate profile and expected indicators:

NO	PROFIL	DESKRIPTOR
1	Physics educator for Secondary Education	Produce educators in the field of physics at primary and secondary education levels (SMP/MTS/SMA/MA/SMK) who master the characteristics of students, planning, implementation, implementation and evaluation as well as feedback based on innovative learning media with Islamic and cultural character.
2	Physics researcher	Produce researchers in the field of Physics Education who can conduct research in the form of assessment and evaluation of physics learning with a quantitative or qualitative approach to solving physics learning problems and published in scientific journals.
3	Entrepreneur	Produce educators who have an entrepreneurial spirit in the field of education including as tutors, book writers, learning modules, producers and marketers of interactive learning media.

### *Learning Outcomes:*

#### **Learning Outcomes in Attitude and Values**

- a. Fear of God Almighty and able to show attitude c;
- b. upholding human values in carrying out tasks based on religion, morals, and ethics;
- c. contribute to improving the quality of life in society, nation, state, and the progress of civilization based on Pancasila;
- d. act as citizens who are proud and love their homeland, have nationalism and a sense of responsibility to the state and nation;
- e. respect the diversity of cultures, views, religions, and beliefs, as well as the opinions or original findings of others;

- f. work together and have mutual sensitivity and concern for society and the environment;
- g. obey the law and discipline in the life of society and the state;
- h. internalize academic values, norms, and ethics;
- i. demonstrate an attitude of responsibility for work in the field of expertise independently;
- j. internalize the spirit of independence, struggle, and entrepreneurship.

#### **Learning Outcomes in General Skills**

- a. able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pays attention to the implementation of science and technology

that pays attention to and applies humanities values in accordance with their field of expertise able to demonstrate independent, quality and measurable performance

- b. able to examine the implications of the development or implementation of science and technology that pays attention to and applies humanities values in accordance with their expertise based on scientific rules, procedures and ethics in order to produce solutions, ideas, designs or art criticism, scientific descriptions of the results of their studies in the form of a thesis or final project report and upload it on the college page
- c. scientific description of the results of the study above in the form of a thesis or final project report and uploading it on the university's website
- d. able to make appropriate decisions in the context of completion in their field of expertise, based on the results of information and data analysis
- e. able to maintain and develop work networks with supervisors, colleagues, colleagues both inside and outside the institution
- f. able to be responsible for the achievement of group work results and carry out and evaluate the completion of the work assigned to the workers under their responsibility.
- g. able to carry out the process of self-evaluation of the work group under their responsibility, and able to manage learning independently.
- h. able to document, store, secure, and find data to ensure validity and prevent plagiarism

#### **Learning Outcomes in Specific Skills**

- a. Skilled in formulating physics learning plans through a scientific approach in a logical manner
- b. Skilled in carrying out the physics learning process with an IT-based scientific approach that is in accordance with educational process standards at the primary and secondary education levels
- c. Skilled in evaluating physics learning using assessment with rules or principles that are in accordance with educational assessment standards
- d. Able to guide students by providing stimulus, question and answer, providing alternative solutions, and feedback to achieve the expected competencies appropriately
- e. Able to conduct physics education research in the form of assessment and evaluation of physics learning with quantitative and/or

qualitative approaches to solve physics learning problems comprehensively

#### **Learning Outcomes in the Field of Knowledge**

- a. Able to analyze the characteristics of student development at the primary and secondary education levels properly and correctly
- b. Able to analyze interactions between students, students with teachers, and students with the environment in the learning process appropriately.
- c. Able to apply specific concepts to teach physics concepts by considering the characteristics of the concept and appropriate concepts.
- d. Able to understand the theoretical concept of communication based on the characteristics of students' morals and culture by using good and correct behavior as a form of good citizenship.
- e. Able to apply knowledge about classroom management in the learning process in accordance with school conditions.
- f. Able to apply knowledge of school management according to national education standards
- g. able to understand the concepts and research procedures of physics education at the primary and secondary education levels (SMP/MTS, SMA/MA/SMK) according to the scientific method
- h. able to apply the concepts and theories of counseling guidance to solve student problems in physics learning appropriately
- i. Able to apply the theoretical concepts of classical physics with a study approach for primary and secondary education (SMP/MTS, SMA/MA/SMK) properly and correctly.
- j. Able to understand the theoretical concepts of modern physics with a study approach for primary and secondary education (SMP/MTS, SMA/MA/SMK) properly and correctly.
- k. Able to apply physics experiments with a contextual approach to primary and secondary education (SMP/MTS, SMA/MA/SMK) properly and correctly.
- l. Able to apply the concepts of applied physics through experiments according to the needs of the development of technology appropriately

#### **JUDGMENT AND RECOMMENDATIONS**

Through curriculum workshops that have been implemented. The evaluation team from the

expert group of FKIP and MIPA academics at Sriwiaya University has provided several assessments and recommendations, including:

1. The new curriculum is able to accommodate MBKM policies with various schemes offered
2. Redesign the curriculum according to its content and the needs of today's world of work. Care must be taken to design the curriculum. The most important thing to do before redesigning the curriculum is to define graduate outcomes. With the aim of preparing human resources for life 10 years or 20 years to come.

The curriculum evaluation meeting has also been held by the physics education study program at UIN Raden Fatah Palembang whose

participants are internal lecturers. This meeting has resulted in several assessments and recommendations as follows:

1. It is necessary to study several courses in order to follow the hierarchy and prerequisites of the previous courses
2. Study the CPL of too large SKS courses such as Mechanics and Electricity and Magnetism. The FGD related to the evaluation of the KKNi curriculum has also been carried out with students. This FGD resulted in an evaluation that many students wanted courses that were able to provide opportunities for students. the hope is that students can develop specific skills that support their work after graduation.

External Evaluation Group Recommendations			
1.	Alumni	FGD on Evaluation Curriculum with alumni and stakeholders	Adding courses that can introduce students to technology-based learning.  Adding selected MKs that provide special skills and in accordance with current developments, especially in the field of entrepreneurship by utilizing ICT.
2.	Expert	FGD between Head of Physics Education	Elective courses should be submitted to lecturers who support the profession/entrepreneur

The results of the recommendations from the internal and external evaluations of the curriculum become the basis for evaluating the assessment of graduate competencies, learning outcomes contained in the evaluation of courses in the Physics Education Study Program. Elimination and change of course names in the curriculum of the Physics Education Study Program at UIN Raden Fatah Palembang

## CONCLUSION

Based on the results and discussion above, it can be concluded as follows:

1. There are three profiles of graduates of physics education program at UIN Raden Fatah Palembang which are expected to be Physics Educators for Secondary Education, Physics Researchers, and Entrepreneurs.
2. The assessment of the implementation of the

IQF curriculum has been carried out by expert judgment which resulted in several recommendations for improving the curriculum towards MBKM

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